

Chemical Analysis Report

CEN-DIST-2023-08-15-02

Florida DEP Laboratory
2600 Blair Stone Road
Tallahassee, FL 32399-2400
DOH Accreditation E31780

Event Description: **Run 15**
Request ID: **RQ-2023-08-14-14**
Customer: **CEN-DIST**
Project ID: **SMP**

Send Reports to:
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Date Certified: 06-SEP-2023 12:52



Case Narrative

Unless otherwise noted, all samples included in this report were received in accordance with protocols referenced in Chapter 62-160, Florida Administrative Code (F.A.C.). Results published in this report pertain only to the samples as submitted to, and received by the laboratory. All times in this report are adjusted to the applicable Eastern Time Zone (EST or EDT).

Results for the following analytical group are included in this report: Nutrients.

Scientific notation may be used in reporting very large or small values. Values reported using scientific notation will take the form of the following example: 1.3E+03, which is equivalent to 1.3×10^3 or 1300.

Unless otherwise noted, analytical values for soil and sediment samples are reported on a dry weight basis, and analytical values for waste and tissue samples are reported on a wet weight basis.

Results for TNI accredited tests met requirements established by The NELAC Institute. A double asterisk (**) is used to indicate an analyte/matrix/method for which the laboratory is not TNI accredited by the Florida Department of Health Environmental Laboratory Certification Program or where accreditation for that field of testing is not applicable.

Any significant anomalies or deviations from established protocols are documented in Non-Conformance Reports, which, where appropriate, are included within this analytical report. Additional comments related to specific analytical tests may be included as remarks following the analytical results for each sample. Such comments and remarks are for informational purposes only and are not intended to convey judgement about the usability of the reported data.

A quality control report on the performance of the test method for the submitted samples is included. Uncertainty associated with the analytical results contained in this report can be estimated from the reported quality assurance results and from published quality control acceptance limits for each analytical test. Matrix quality control results (matrix spike recoveries and matrix sample precision) pertain only to the matrix sample tested and do not necessarily reflect test method performance for other samples.

Typical matrix quality control (QC) measurements may include matrix spike recovery, matrix spike duplicate recovery, matrix spike precision and matrix sample precision. Not all matrix QC results may be available or reportable; where they are not an explanation is provided. Typical reasons for unavailable QC results include, but are not limited to, a) insufficient matrix sample to perform some or all QC measurements; b) analyte concentration in the sample replicated was too low for a meaningful measurement of precision and c) analyte concentration in the matrix sample spiked was too high (relative to the amount of analyte spiked) for a meaningful measurement of recovery. Where matrix QC results are unavailable, other method performance metrics (e.g., LCS recovery, LCS precision, surrogate recovery) may be used to assess performance of the method. Comments explaining any missing QC measurements are not intended to convey any adverse conclusions about the quality of the reported data.

Precision is reported as relative percent difference unless otherwise noted.

Quality Control codes as defined below may be used in this report to indicate results that are associated with one or more quality control elements which did not fall within established test method criteria. Such results may be qualified as estimates using a J qualifier as required by 62-160 F.A.C. Explanations are included in the report for any results that were reported as estimates for other reasons.

QC Codes used in this report may include:

- LCS – Recovery for the batch Laboratory Control Sample (LCS) was outside existing control limits;
- MS – Recovery for the batch matrix spike (MS) was outside existing control limits;
- CCV – Recovery for a continuing calibration verification (CCV) standard was outside existing control limits;
- SUR – Recovery of a surrogate (SUR) for associated analytes was outside existing control limits;
- RPD – The precision, measured as relative percent difference (RPD), of batch replicate measurements was outside existing control limits;
- RSD – The precision, measured as relative standard deviation (RSD), of batch replicate measurements was outside existing control limits;
- SMP – Sample - used precision derived from replicate analyses of a sample;

The following data qualifiers are used, where applicable, in this report as specified in 62-160 F.A.C.

- A - Value reported is the mean of two or more determinations.
- B - Results based on colony counts outside the acceptable range.
- I - The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
- J - Estimated value and/or the analysis did not meet established quality control criteria.
- K - Actual value is known to be less than value given.
- L - Actual value is known to be greater than value given.
- N - Presumptive evidence of presence of material.
- O - Sampled, but analysis lost or not performed.
- Q - Sample held beyond normal holding time.
- T - Value reported is less than the criterion of detection.
- U - Material was analyzed for but not detected. The reported value is the method detection limit for the sample analyzed.
- V - Analyte was detected in both sample and method blank.
- X - Too few individuals to calculate SCI value.
- Y - The laboratory analysis was from an unpreserved or improperly preserved sample. The data may not be accurate.
- Z - Colonies were too numerous to count (TNTC).

Quality control information from overflow laboratories may not be included in this report. Please refer to the associated report from the overflow laboratory for additional information.

Sample Location: HIDDEN LAKE AT CENTER

Collection Date/Time: 08/14/2023 10:05

Field ID: G4CE0158

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2431101	DEP SOP: NU-094-1	Color (true)	32		PCU	P433866	
	EPA 180.1 Rev. 2.0	Turbidity	1.6		NTU	P433878	
	EPA 300.0 Rev. 2.1	Chloride	22		mg Cl/L	P434072	
		Sulfate	0.57		mg SO4/L	P434075	
	SM 2320 B-2011	Total Alkalinity	130	A	mg CaCO3/L	P434015	
	SM 2540 C-2015	TDS	205		mg/L	P434487	
	SM 2540 D-2015	TSS	2	I	mg/L	P434267	
	SM 4500-F- C-2011	Fluoride	0.20		mg F/L	P434018	
2431103	EPA 350.1 Rev. 2.0	Ammonia-N	0.014		mg N/L	P434316	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.3		mg N/L	P434086	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P434563	
	EPA 365.1 Rev. 2.0	Total-P	0.053		mg P/L	P433964	
	SM 5310 B-2011	Organic Carbon	17		mg C/L	P434115	

Ref. Method and Comment:

SM 2540 D-2015: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

SM 5310 B-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Sample Location: CROOKED LAKE AT CENTER OF N LOBE

Collection Date/Time: 08/14/2023 11:50

Field ID: G2CE0265

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2431102	DEP SOP: NU-094-1	Color (true)	88		PCU	P433866	
	EPA 180.1 Rev. 2.0	Turbidity	6.0		NTU	P433878	
	EPA 300.0 Rev. 2.1	Chloride	15		mg Cl/L	P434072	
		Sulfate	1.6		mg SO4/L	P434075	
	SM 2320 B-2011	Total Alkalinity	27		mg CaCO3/L	P434015	
	SM 2540 C-2015	TDS	93		mg/L	P434487	
	SM 2540 D-2015	TSS	8	I	mg/L	P434267	
	SM 4500-F- C-2011	Fluoride	0.059	I	mg F/L	P434018	
2431104	EPA 350.1 Rev. 2.0	Ammonia-N	0.012		mg N/L	P434316	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.9		mg N/L	P434086	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P434564	
	EPA 365.1 Rev. 2.0	Total-P	0.041		mg P/L	P433964	
	SM 5310 B-2011	Organic Carbon	20		mg C/L	P434115	

Ref. Method and Comment:

SM 2540 D-2015: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

SM 5310 B-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Sample Location: FB

Collection Date/Time: 08/14/2023 12:00

Field ID: FB_08142023

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2431105	DEP SOP: NU-094-1	Color (true)	2.5	U	PCU	P433866	
	EPA 180.1 Rev. 2.0	Turbidity	0.10	U	NTU	P433878	
	EPA 300.0 Rev. 2.1	Chloride	0.20	U	mg Cl/L	P434072	
		Sulfate	0.20	U	mg SO4/L	P434075	
	SM 2320 B-2011	Total Alkalinity	0.65	U	mg CaCO3/L	P434015	
	SM 2540 C-2015	TDS	15	U	mg/L	P434487	
	SM 2540 D-2015	TSS	2	U	mg/L	P434267	
	SM 4500-F- C-2011	Fluoride	0.025	U	mg F/L	P434018	
2431106	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P434316	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.080	U	mg N/L	P434086	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P434564	
	EPA 365.1 Rev. 2.0	Total-P	0.002	U	mg P/L	P434308	MS
	SM 5310 B-2011	Organic Carbon	0.50	U	mg C/L	P434203	

Ref. Method and Comment:

SM 2540 D-2015: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Quality Assurance Report

Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P433866

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P433878

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P434072

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P434075

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P434316

Component	Result	Code	Units
Ammonia-N	0.002	U	mg N/L

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P434086

Component	Result	Code	Units
Kjeldahl Nitrogen	0.090	I	mg N/L

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P434563

Component	Result	Code	Units
NO2NO3-N	0.004	U	mg N/L

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P434564

Component	Result	Code	Units
NO2NO3-N	0.004	U	mg N/L

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P433964

Component	Result	Code	Units
Total-P	0.003	I	mg P/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P434308

Component	Result	Code	Units
Total-P	0.002	U	mg P/L

Reference Method: SM 2320 B-2011
Batch ID: P434015

Component	Result	Code	Units
Total Alkalinity	0.65	U	mg CaCO ₃ /L

Reference Method: SM 2540 C-2015
Batch ID: P434487

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2015
Batch ID: P434267

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011
Batch ID: P434018

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P434115

Component	Result	Code	Units
Organic Carbon	0.50	U	mg C/L

Reference Method: SM 5310 B-2011
Batch ID: P434203

Component	Result	Code	Units
Organic Carbon	0.50	U	mg C/L

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: DEP SOP: NU-094-1
Batch ID: P433866

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	103		P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P433878

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Turbidity	98.0		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P434072

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	101		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P434075

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	98.9		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P434316

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	98.0		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P434086

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	105		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P434563

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	101		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P434564

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	99.5		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P433964

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	99.5		P	90 - 110

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P434308

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	107		P	90 - 110

Reference Method: SM 2320 B-2011
Batch ID: P434015

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	98.0		P	92 - 105

Reference Method: SM 2540 C-2015
Batch ID: P434487

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TDS	93.3		P	90 - 110

Reference Method: SM 2540 D-2015
Batch ID: P434267

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TSS	91.4		P	85 - 106

Reference Method: SM 4500-F- C-2011
Batch ID: P434018

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	101		P	94 - 106

Reference Method: SM 5310 B-2011
Batch ID: P434115

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	97.3		P	85 - 115

Reference Method: SM 5310 B-2011
Batch ID: P434203

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	92.8		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P434072

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2431113	Chloride	101		P	90 - 110
2431322	Chloride	101		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P434075

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2431113	Sulfate	98.0		P	90 - 110
2431322	Sulfate	98.4		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P434316

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2431053	Ammonia-N	97.0	98.8	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P434086

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2431038	Kjeldahl Nitrogen	97.0	101	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P434563

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2430999	NO2NO3-N	95.5	95.0	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P434564

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2431104	NO2NO3-N	99.0	98.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P433964

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2431119	Total-P	102	97.6	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P434308

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2431327	Total-P	110	111	P/F	90 - 110

Reference Method: SM 4500-F- C-2011
Batch ID: P434018

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2431101	Fluoride	99.5	99.5	P/P	94 - 106

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: SM 5310 B-2011
Batch ID: P434115

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2429953	Organic Carbon	98.0		P	85 - 115

Reference Method: SM 5310 B-2011
Batch ID: P434203

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2431923	Organic Carbon	95.0	96.5	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P433866

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2431056	Color (true)	3.10	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P433878

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2430997	Turbidity	6.77	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P434072

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2431113	Chloride	0.276	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P434075

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2431113	Sulfate	0.113	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P434316

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2431053	Ammonia-N	1.75	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P434086

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2431038	Kjeldahl Nitrogen	2.37	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P434563

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2430999	NO2NO3-N	0.494	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P434564

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2431104	NO2NO3-N	0.506	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P433964

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2431119	Total-P	4.44	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P434308

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2431327	Total-P	1.21	Spike	P	0 - 20

Reference Method: SM 2320 B-2011
Batch ID: P434015

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2431101	Total Alkalinity	0.916	Sample	P	0 - 3.9

Reference Method: SM 2540 C-2015
Batch ID: P434487

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2430825	TDS	3.87	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011
Batch ID: P434018

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2431101	Fluoride	0.0	Spike	P	0 - 1.9

Reference Method: SM 5310 B-2011
Batch ID: P434203

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2431923	Organic Carbon	1.11	Spike	P	0 - 20

* Sample, spike and/or laboratory control sample precision (LCS) is reported.

Quality Assurance Report Calibration Verification

Reference Method: DEP SOP: NU-094-1

Run ID: A121044

Included Lab Sample IDs: 2431101, 2431102, 2431105

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	102	102	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A121048

Included Lab Sample IDs: 2431101, 2431102, 2431105

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	98.5	98.0	P/P	95 - 105

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A121057

Included Lab Sample IDs: 2431101, 2431102, 2431105

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	96.9	98.3	P/P	90 - 110
Sulfate	96.9	97.8	P/P	90 - 110

Reference Method: SM 2320 B-2011

Run ID: A121111

Included Lab Sample IDs: 2431101, 2431102, 2431105

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	96.0	98.3	P/P	90 - 110
Total Alkalinity	98.3	95.7	P/P	90 - 110

Reference Method: SM 4500-F- C-2011

Run ID: A121111

Included Lab Sample IDs: 2431101, 2431102, 2431105

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	102	104	P/P	90 - 110
Fluoride	103	102	P/P	90 - 110

Reference Method: SM 5310 B-2011

Run ID: A121148

Included Lab Sample IDs: 2431103, 2431104

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	96.5	96.9	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A121176

Included Lab Sample IDs: 2431103, 2431104

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	100	100	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: SM 5310 B-2011

Run ID: A121186

Included Lab Sample IDs: 2431106

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	95.5	95.4	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A121219

Included Lab Sample IDs: 2431103, 2431104, 2431106

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	107	105	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A121231

Included Lab Sample IDs: 2431103, 2431104, 2431106

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	102	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A121256

Included Lab Sample IDs: 2431106

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	100	102	P/P	90 - 110

* Pass/Fail determinations are made for each bracketing calibration verification check.

Control limits for initial calibration checks may be different from those for continuing checks, depending on method requirements.

Where they are different, both control limits are provided.

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	MS
DEP SOP: NU-094-1	Color (true)	103			3.10	
EPA 180.1 Rev. 2.0	Turbidity	98.0			6.77	
EPA 300.0 Rev. 2.1	Chloride	101	101	101	0.276	
	Sulfate	98.9	98.0	98.4	0.113	
EPA 350.1 Rev. 2.0	Ammonia-N	98.0	97.0	98.8		1.75
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	105	97.0	101		2.37
EPA 353.2 Rev. 2.0	NO2NO3-N	101	95.5	95.0		0.494
	NO2NO3-N	99.5	99.0	98.5		0.506
EPA 365.1 Rev. 2.0	Total-P	99.5	102	97.6		4.44
	Total-P	107	110	111		1.21
SM 2320 B-2011	Total Alkalinity	98.0			0.916	
SM 2540 C-2015	TDS	93.3			3.87	
SM 2540 D-2015	TSS	91.4				
SM 4500-F- C-2011	Fluoride	101	99.5	99.5		0.0
SM 5310 B-2011	Organic Carbon	97.3	98.0			
	Organic Carbon	92.8	95.0	96.5		1.11

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2431101, 2431102, 2431105
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2431101, 2431102, 2431105
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2431101, 2431102, 2431105
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2431101, 2431102, 2431105
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2431103, 2431104, 2431106
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2431103, 2431104, 2431106
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2431103, 2431104, 2431106
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2431103, 2431104, 2431106
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2431101, 2431102, 2431105
SM 2540 C-2015	Total Dissolved Solids in aqueous matrices	2431101, 2431102, 2431105
SM 2540 D-2015	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2431101, 2431102, 2431105
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2431101, 2431102, 2431105
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2431103, 2431104, 2431106

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
DEP SOP: NU-094-1	08/15/2023			08/15/2023 14:53	Samantha L Bates	2431101
	08/15/2023			08/15/2023 14:54	Samantha L Bates	2431102, 2431105
EPA 180.1 Rev. 2.0	08/15/2023			08/15/2023 15:04	Chandler E Cox	2431101
	08/15/2023			08/15/2023 15:05	Chandler E Cox	2431102
	08/15/2023			08/15/2023 15:06	Chandler E Cox	2431105
EPA 300.0 Rev. 2.1	08/15/2023			08/18/2023 05:43	James L Waggeberby	2431101
	08/15/2023			08/18/2023 05:57	James L Waggeberby	2431102
	08/15/2023			08/18/2023 06:12	James L Waggeberby	2431105
EPA 350.1 Rev. 2.0	08/15/2023			08/24/2023 13:02	Ping Hua	2431103
	08/15/2023			08/24/2023 13:03	Ping Hua	2431104
	08/15/2023			08/24/2023 13:04	Ping Hua	2431106
EPA 351.2 Rev. 2.0	08/15/2023	08/21/2023 10:41	Simonne.V. Calhoun	08/23/2023 16:22	Samantha L Bates	2431103
	08/15/2023	08/21/2023 10:41	Simonne.V. Calhoun	08/23/2023 16:23	Samantha L Bates	2431104
	08/15/2023	08/21/2023 10:41	Simonne.V. Calhoun	08/23/2023 16:25	Samantha L Bates	2431106
EPA 353.2 Rev. 2.0	08/15/2023			09/01/2023 11:04	Anna M. Plaviak	2431103
	08/15/2023			09/01/2023 11:11	Anna M. Plaviak	2431104
	08/15/2023			09/01/2023 11:17	Anna M. Plaviak	2431106
EPA 365.1 Rev. 2.0	08/15/2023	08/17/2023 14:21	Adam P Silver	08/22/2023 11:43	James L Waggeberby	2431103
	08/15/2023	08/17/2023 14:21	Adam P Silver	08/22/2023 11:44	James L Waggeberby	2431104
	08/15/2023	08/24/2023 14:28	Alexis Price	08/25/2023 12:30	James L Waggeberby	2431106
SM 2320 B-2011	08/15/2023			08/17/2023 12:01	Dale L. Simmons	2431101
	08/15/2023			08/17/2023 14:37	Dale L. Simmons	2431102
	08/15/2023			08/17/2023 14:47	Dale L. Simmons	2431105
SM 2540 C-2015	08/15/2023			08/18/2023 16:04	Yijie Li	2431101, 2431102, 2431105
SM 2540 D-2015	08/15/2023			08/18/2023 16:04	Yijie Li	2431101, 2431102, 2431105
SM 4500-F- C-2011	08/15/2023			08/17/2023 11:50	Dale L. Simmons	2431101
	08/15/2023			08/17/2023 14:37	Dale L. Simmons	2431102
	08/15/2023			08/17/2023 14:47	Dale L. Simmons	2431105
SM 5310 B-2011	08/15/2023			08/19/2023 03:36	Elise M. Gillis	2431103
	08/15/2023			08/19/2023 03:50	Elise M. Gillis	2431104
	08/15/2023			08/22/2023 14:09	Elise M. Gillis	2431106